Rytec installation safety information

The meaning of signal words

Technical content produced by Rytec includes safety information which must be read, understood and obeyed to reduce the risk of death, personal injury or equipment damage. This information is boxed to set it apart from other text. The boxed text identifies the nature of the hazard and appropriate steps to avoid it. The safety alert symbol identifies a situation that can result in personal injury. The accompanying signal word indicates the likelihood and potential severity of the injury. The meaning of the signal words is as follows:

- **WARNING**: Warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.
- **CAUTION**: Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

Safety icons used in this manual

- Shock hazard
- Fall hazard
- Crush hazard
- Cut hazard
- Forklift

Installation safety

- **Do not install any Rytec product until** you have read and understood the safety information and instructions. Make sure all applicable regulations are observed and obeyed at all times.
- **Observe these precautions** while installing the door:
  - Only trained, qualified and authorized individuals are to install the door and the control system.
  - The installation site comprises the physical area required to safely uncrate, stage and install the door.
  - Make sure there is no pedestrian or vehicular traffic within the installation site for the duration of the installation.
  - Make sure you and use all required Personal Protective Equipment.
  - Make sure you have adequate personnel and equipment to safely perform all lifts.
  - Make sure you have been informed of any hazardous conditions that exist within the installation site.
  - Make sure the installation site is kept clear of obstructions and debris and that the floor is dry.
  - Make sure you are aware of the location of all power lines, piping and HVAC systems within the installation site.
  - Make sure all accessories installed with the door are approved by the manufacturer.

Other icons used in this manual

- **IMPORTANT**: Indicates instructions which, if not followed, could result in damage to the door or voiding of the warranty.
- **TIP**: Indicates best practice. This is how Rytec Technical Support does the job.

Requirements – Staffing

- Two installers – three are recommended when the door panel is lifted.
- A licensed electrician is recommended for making all electrical connections.

Electrician’s responsibilities

Refer to the Rytec System 4® Drive & Control Installation & Owner’s Manual for a complete list of the electrician’s responsibilities.

- **WARNING**: Electrical work must meet all applicable local, state and national codes. Failure to wire the door correctly can cause shock, burns or death to the people who install, use or service the door. Failure to comply also voids the warranty for the door.

Requirements – Site Conditions

- Installers must have unrestricted access to the door opening at all times during the installation.
- Make sure there is no pedestrian or vehicular traffic within the installation site for the duration of the installation.
- Make sure you have adequate personnel and equipment to safely perform all lifts.
- Make sure the installation site is kept clear of obstructions and debris and that the floor is dry.
- Make sure you are aware of the location of all power lines, piping and HVAC systems within the installation site.
- Make sure all accessories installed with the door are approved by the manufacturer.

Requirements – Lifts

- **WARNING**: A forklift is mandatory for the safe and proper installation of this door.

- Forklift that meets the following specifications:
  - Minimum 4,000-pound lift capacity
  - Minimum height ability: door height + 12”
  - 48”–wide fork
  - Side shift capability

- **WARNING**: Follow all safety instructions on all lifts and ladders used for this installation.

- Scissor lift that meets the following specifications:
  - Can hold both installers
  - Minimum height ability: door height

- Alternatively, two ladders of sufficient height to safely access the door head assembly
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**Terms used by Rytec to describe the parts of the door**

This illustration shows the terms used by Rytec technical support to refer to the major components of your door. Using these terms helps technical support provide assistance as quickly as possible.
1. **Remove all top panels.**

Panels are made of fiberboard that shreds easily, and are secured with many nails. Slide the pry bar along the edge, prying gently every six inches, to remove the panel in one piece.

2. **Check the crates.** Make sure all serial numbers match the number on the crate and all visible parts have no shipping damage.

   - **Small parts boxes:** Check the serial number on side of box. There may be two boxes.
   - **System 4 controller box:** Check the serial number on side of box.
   - **Rear seal (rear spreader):** Check the serial number on green tag.
   - **Door panel:** On separate pallet. Requires forklift to remove.

3. **Check your tools.** Make sure you have all tools and supplies for the installation.

   - **Tools you need:**
     - Pry bar and mallet or reciprocating saw
     - Crowbar
     - Cutting pliers
     - Utility knife
     - Wire stripper
     - Precision screwdriver
     - Flat screwdriver
     - Torque wrench
     - #2 Phillips screwdriver
     - Torx screwdriver
     - Socket or open wrench
     - #2 Sockets or wrenches needed
     - Laser level
     - (2) Bar clamps
     - Measuring tape
     - Spirit level
     - Carpenter's square
     - Snap ring pliers
     - (2) Ratchet straps
     - (2) Vise grips
     - Power drill
     - Anchoring hardware
     - Shims
     - Calk
     - Cable ties
     - Electrical tape and wire nuts

**Assistance:**
- **Toll free:** 888-80-RYTEC
- **Phone:** 262-677-9048
- **Fax:** 262-677-2058
- **Helpdesk:** helpdesk@rytecdoors.com
- **Address:** One Center Parkway  Jackson, Wisconsin  53037 – 0403  United States

**Spiral® LH® (Low Headroom) SSN and STN Installation Manual**

Call 800-628-1909 or email helpdesk@rytecdoors.com if you have any questions during this installation. See previous page for list of Rytec terms for the parts of the door. If you have any questions during this installation. See previous page for list of Rytec terms for the parts of the door.
Check the measurements. Make sure the door will fit in the installation site.

1. Locate the Door Width \( \text{a} \) and Door Height \( \text{b} \) on the object list. Round the numbers to the nearest \( \frac{1}{16} \) inch. Write these numbers on the object list.
2. Measure the door opening to make sure:
   - The opening width equals the number on the object list \( \text{a} \).
   - The opening height equals the number on the object list \( \text{b} \).
3. Measure the rear seal (rear spreader) \( \text{c} \).
   - The length should equal the Door Width \( \text{a} \) in the object list.
4. Calculate the total height needed for the installation:
   - Measure the height of a side column \( \text{d} \) in the crate.
   - Add two inches (2") to account for the side consoles and at least one inch (1") of clearance.
   - Write this number on the object list.
5. Make sure there is enough space to install the door:
   - Make sure the site has space total height you calculated.
6. Calculate the width to center: divide the Door Width \( \text{a} \) by 2.
   - Write this number on the object list. Use it when you center the door.

Call Rytec technical support at 800-628-1909 or email helpdesk@rytedoors.com if you have any questions about the measurements at the site.
How to prep the consoles

1. Cut ties so you can move the springs, and any other parts that block clear access to the console pallet.

   Use a forklift to move the consoles to an open space.

   **IMPORTANT**
   - Pallet is nailed to crate. Use a crowbar to loosen the nails before lifting.

   After the consoles are removed, use the crate to stage parts until they are needed.

2. Carefully cut the shrink wrap and remove the drive side and non-drive side consoles.

   **Utility knife**

3. Drive side console: remove the belt guard.

4. Remove the five preinstalled side column bolts and washers (located in the non-shaded area).

   Do this on both consoles.

   **Cutting pliers**

Things to know before you prep the drive side console

- The cables that are preinstalled in the drive side console should not be repositioned, removed, or have the ties cut until you are instructed to do so in these instructions.

- Make sure all preinstalled cables, belts and straps are clear of the side columns when you lift the console into place, so that they are not crushed or cramped.

Drive side console

- Wireless antenna: this is prewired to the encoder (inside the motor) and crated next to the motor. Leave in place until it is time to install it.

- Brake release cable: make sure this stays clear of the side column when the console is lifted into place.

- Power cables: these are preinstalled, cable tied and placed on the drive shaft when the door is crated. Wire colors are shown below.

- Leave the coils in place until the console is installed.

Motor power: Red, Black, White, Green

Wires: Black, White

Wires: White, Yellow, Pink, Gray, Red, Green, Blue, Brown

Wires: White, Yellow, Gray, Orange, Purple, Red, Green, Blue, Brown, Black

Wires: Black, White
How to prep the side columns

1. **Remove** the covers on both side columns.
   Screws for side column covers run in a vertical line. There is also one screw at the base of the column.
   - **Check all surfaces** on side columns and head assembly for protective film. **Remove** film.
   - Covers may have one, two or three panels depending on height. **Keep** covers intact – **DO NOT** remove screws that run horizontally (shaded area).

2. **Make sure** the vertical guide tracks for the door panels are in the fully lowered position.
   - Door ships with each track set below the lip of its side column. This protects the locating pins while the console is being raised into place.
   - After the consoles are in place, raise the track to meet the curved track in the console. The locating pins align the two tracks.

3. **Loosen** the holders on the vertical guide track. **If necessary**, lower the track.
   **Do this** for both columns.
   - **Loosen, but do not remove**, each pair of track holders. The screws pass through a spacer and into holes in the wall of the column. **Do not loosen them so far** that they come loose from their hole.
   - The number of holders varies based on the height of the column.
   - The track should slide freely when you are done.

4. **-S and -S/R doors only**: if there are two baseplate tubes for the springs attached to the side column baseplates (see page 19 for spring configurations), **remove** the front tube 1, then **reinstall** the two retaining nuts to their posts 2.
   - **13mm** Loosen, but do not remove, each pair of track holders. The screws pass through a spacer and into holes in the wall of the column.
   - Do not loosen them so far that they come loose from their hole.
   - The number of holders varies based on the height of the column.
   - The track should slide freely when you are done.

5. **Select one holder at the halfway point of the side column** and **hand tighten the screws** to secure the guide track in place. **Do this** for both columns.
   - The tracks can now be repositioned easily after the side columns are installed, but will not slide while the columns are being lifted into place and leveled.
   - **13mm** Keep, reuse number of screws varies based on height of door number of screws varies based on height of door.
How to center the door in the door opening

Rytec doors are engineered to be centered in the door opening, so follow these steps even if the width of the opening and the production width match exactly.

1. **Measure the width of the door opening (w) and find the halfway point ($\frac{1}{2}w$).** Mark the centerline there.

2. **Use the width to center from the object list ($a = \frac{1}{2}w$).** Starting at the centerline, measure and mark the reference line for the first column.

Plumb, level, square: how to position the door correctly as you install the side columns

**IMPORTANT** Call Rytec technical support at 800-628-1909 immediately and stop the installation if you are not able to correctly position the door.

Before you begin: things to know before you anchor the side columns

**IMPORTANT** Do not anchor the top anchor hole on the inside of the side column (above the guide track) until after the consoles have been installed and leveled.

This anchor passes through both the console and the side column.

There are four sets of anchor holes (a-b-c-d) at the top of each side column, with two holes in each set.

- Use at least one anchor in each set of anchor holes: a, b, c, and d. Anchor both holes unless conditions at the installation site prevent this.
- Position anchors at the horizontal center of the anchor holes.

How to anchor the door:

- Use $1/2"$ diameter through bolts, $1/2"$ diameter threaded rods or equivalent to anchor side columns.
- Anchoring hardware and materials must be provided by the door owner or installer.
- Make sure anchors do not interfere with moving parts of the door.

For doors over 12' (twelve feet) in height, drill an extra anchor hole near the halfway point of the side column for added stability when the column is installed.

There are three anchor holes (a-b-c) in the baseplate of each side column.

You must use at least two anchors in the baseplate.

For -S and -S/R doors:

- The front baseplate spring tube must be removed to access the third hole.
- The baseplate pulley assembly is preinstalled into the baseplate.
**Step 1: Plumb and level the site, then install and plumb the side columns**

1. **Plumb** the door opening. If the wall is not plumb, or there is bowing or an obstruction in the wall, **shim** the columns.

   **IMPORTANT**
   
   To prevent column from bowing, shim as needed at each anchor point.

   ![Shim Diagram]

2. **Level** the floor.

   ![Level Diagram]

3. **Clamp** the first side column into place.

4. **Plumb** the side column.

5. **Anchor** the first side column to the wall at the **top of the column and baseplate**. Set anchors tight. **Remove** clamp(s).

6. **Make sure** you have read **Before you begin** on the previous page before you start.

**IMPORTANT**

DO NOT ANCHOR the top anchor hole nearest to the door opening until the consoles have been installed and leveled.
7 Measure and mark the reference mark for the second side column.

8 Clamp the non-drive side column into place.

9 Set a laser line parallel to the wall 1” (one inch) in front of columns. Make sure the line is parallel to the wall.

10 Plumb the side columns to each other.

11 If necessary, shim the side columns so they are plumb to each other.
Step 2: Install the rear seal (rear spreader)

1. **Install** bolts on both sides of the seal and **hand tighten**.

2. **Make sure** all of the anchor points of the seal are making direct contact with the wall.
   - If necessary, **shim the seal** at all anchor points that are not flush.

3. **Make sure** the rear seal is level, then **anchor** the rear seal to the wall at all anchor points.

4. **Tighten** the bolts on both sides of the seal.

---

Step 3: Replumb and square the door and finish anchoring the side columns

1. **Make sure** the second side column is properly lined up, then **replumb** both side columns from the front.

2. **Square** the door:
   - **Measure** distance between side columns at top and bottom of columns ①.
   - **Make sure** the distances are the same.
   - **Measure** distance from bottom corner of drive side to top corner of non-drive side, then from bottom corner of non-drive side to top corner of drive side ②.
   - **Make sure** the distances are the same.

3. **Anchor** the second side column to the wall at the **top** of the column and baseplate.
   - **Set anchors** tight. **Remove clamp(s)**.
   - **IMPORTANT**: **Make sure** you have read Before you begin on page 7. **DO NOT ANCHOR** the top anchor hole nearest to the door opening until the consoles have been installed and leveled.
How to install the consoles

**WARNING**
The drive side console weighs up to 200 pounds.
- Make sure you use a forklift or mechanical lift that meets all requirements listed on page 1 of this manual.
- Make sure the console is secured to the lifting equipment.
- Two-person lift when console is placed on the side column.

1. Lift drive side console into place.

2. Reinstall the side column screws and washers.
   - Hand tighten only until you have leveled the console.

3. Level the console laterally &:
   - If necessary, loosen the side column screws, manually adjust the position of the console, and tighten the screws.
   - Level the console horizontally &:
     - If necessary, loosen the side column screws, manually adjust the position of the console, and tighten the screws.

4. Tighten the side column bolts.

5. Square up the console so it is perpendicular to the wall.
   - Use a carpenter’s square and turn the rear hex adjustment screw.

6. To verify that the console is correctly aligned, loosen the screw on the vertical drive track and raise the track into place.
   - The track pins should slide easily into their holes.
How to set the wraps on the drive and non-drive side spring straps

Things to know before you set the straps

- Springs in the side columns balance the weight of the door panel when it is raised and lowered.
- The spring straps that connect them to the drive shafts have a required minimum number of wraps around the shafts.
- This number is listed in the object list.
- Wraps are set at the factory, but should be checked during the installation and, if necessary, reset.
- On the drive side console, the motor locks the strap in place.

1. Check the spring strap wraps in both consoles. Reset if necessary.
   - Drive side:
   - Non-drive side:
   - Look through the front panel to count the full wraps. If necessary, turn the shaft to add or remove wraps.
   - If necessary, on either side, loosen the secondary drive belt around the drive pulley to allow the drive shaft to turn.

2. Make sure the angles of the drive side and non-drive side shafts mirror each other.
   - This aligns the two secondary drive belts as closely as possible and makes it easier to level the door panel.

3. Drive side: remove the cables from the drive shaft and place them on top of the console.

4. Loosen or remove the screws on the front panels of both consoles.
   - Swing the panels to the open position and reinstall the screws.
   - It may be necessary to loosen the cables in order to fully open the front panel on the drive side console.

5. Anchor the side column to the wall in the hole below the adjustment screw.
   - DO NOT torque the anchoring hardware so much that it bends the rear tab of the console.

6. Repeat these steps for the non-drive side console.

When the angle of the drive shafts match, the drive pulleys are fully aligned. This also aligns the teeth on the secondary drive belts.
How to install the drive tube

1. Remove the clam shell, bolts and washers from both side shafts.
   - Based on the partial wraps from previous steps, shafts may be at an angle which makes the clam shell difficult to remove.

2. Push in the non-drive side shaft until it is tightly seated against the pulley wheel.

3. Lift the drive tube and place both ends into the drive shafts. Immediately reinstall the drive side clam shell, bolts and washers and set hand tight to hold the tube in place.

4. Reinstall the non-drive side clam shell, bolts and washers and set hand tight.

How to center the drive tube

1. Set a crowbar between the drum and the non-drive side shaft. Use it to tighten the drive shafts against the pulleys in both consoles.

2. Check the gap between the drum and the drive shaft on both ends of the tube. Adjust the tube until the gap is even on both ends.

3. Tighten the screws on the non-drive side shaft.
   - Make sure the wraps have not shifted before tightening.
   - Make sure the angles of the shafts and the gaps match on both sides of the drum
   - Torque bolts to 31 ft-lbs.

4. Set the crowbar between the drum and the drive side shaft. Use it to re-tighten the drive shaft against the pulley.

5. Tighten the screws on the drive side shaft.
   - Make sure the wraps have not shifted before tightening.
   - Make sure the angles of the shafts and the gaps match on both sides of the drum
   - Torque bolts to 31 ft-lbs.
How to set the secondary drive belts so the door will be level

Things to know before you realign the belts

- The splice blocks (timing blocks) on the secondary drive belts connect to the door panel and are the points where the belts raise and lower the door.
- With the spring straps correctly wrapped and the drive pulleys locked in place by the motor and the drive shaft, realign the secondary drive belts on the drive pulleys to level the splice blocks.

1. Check the position of each splice block and, if necessary, realign the belts.

   - If necessary, cut the ties to free up the belt. Leave the belt rolled up in the console.
   - The blocks must line up EXACTLY or the door will not operate correctly.
   - Jump the belt until the top of the block lines up with the bottom of the radial track.

   ![Diagram of belt realignment](image)

2. Make sure the pins at the top of the vertical guide track align with the holes in the radial track of the console.

   - Use a pry bar to lift and hold the vertical guide track in place.

3. Tighten the bolts on the track holders.

   - Start at the middle of the track and work toward the top and bottom.
   - Make sure the holder is at a 90° angle to the track before tightening the bolt.
   - You will need to hold it in place while tightening to keep it level.
   - Make two full passes from top to bottom: tighten bolts to snug on the first pass, then fully tighten on the second pass.

   ![Diagram of bolt tightening](image)

   **CAUTION**

   Make sure your fingers are clear of the bolt when tightening. Power tools are not recommended.

4. Remove the bottom section of the vertical guide track cover.

   - Do this in both side columns.

![Diagram of track removal](image)
How to install the horizontal tracks

1. Locate the two horizontal tracks and track covers, and the rear guide rail, in the crate.

2. Line up the guide pins in the horizontal track with the holes in the radial track of the console and install the track. Do this on both consoles.

3. Locate the standoff brackets (side and rear), screws and nuts in the small parts box. Install the covers and brackets onto the tracks. Install the bracket onto the guide rail. If necessary, drill holes through track covers to match standoff bracket holes in horizontal tracks.

4. Locate and install the standoffs on both horizontal tracks. Use the bolt holes that set the top of the standoffs flush with the ceiling.

5. Install the rear guide rail and the rear standoff. Use the bolt holes that set the top of the standoffs flush with the ceiling.

ALL HARDWARE must be installed fully tight so that screw heads are clear of the rollers when the door is operating.
Square the horizontal tracks:
1. Measure between the tracks at the start and end points. If the measurements do not match, adjust the rear guide until they do.
2. Measure diagonally across the tracks. If the measurements do not match, reposition the tracks until they do.
3. When the tracks are square, mark the position of all of the standoffs and the anchoring holes in the ceiling.

Level the horizontal tracks. If necessary, adjust the height of the standoffs.

Anchor the standoffs to the ceiling.

How to install the door panel
1. Use a forklift to remove the door panel, on its pallet, from the crate.

   IMPORTANT
   Pallet is nailed to crate. Use a crowbar to loosen the nails before lifting.

   Make sure the door panel is centered before lifting.

   IMPORTANT

2. Place foam or cardboard against the backstop to protect the door finish.
3. DO NOT clip the ties around the rollers until you are raising the panel. The ties prevent the door panel from unraveling.
4. Make sure the door panels are wrapped AWAY FROM the door opening. If necessary, turn the pallet around.

Things to know about the service plates
- Attach to the ratched straps you use to lift the door panel.

   IMPORTANT
   ALL HARDWARE and STRAPS should be rated at a minimum of 1000 lbs.

   INSIDER’S TIP
   Attach an anchor shackle or carabiner to the service plate to accommodate all hook sizes and configurations.
2. Hang a ratcheted strap from the drive tube next to each side column. **Attach** the service plates.

   - **Important**
     - All straps should be rated at a minimum of 1000 lbs.

3. Use the forklift to **position** the door panel under the vertical guide track. **Cut** the first ties to free up the first wrap of panels and **line them up** under the covered section of the track.

   - **Important**
     - Constantly check the rollers throughout the lift to make sure they are not crushed, bent or pinched in the track.

4. **Hook** the service plates under the first two non-guide rollers on both sides of the door.

   - **Important**
     - Do not use the guide rollers to lift the door panel.

---

**Things to know about lifting the door panel**

- **A three-person crew** should be used to lift the door panel:
  - Two (2) to operate the ratcheted straps
  - One (1) to unroll the door panel and check the rollers.

- **For a two-person crew**:
  - Lift the door panel together, then unroll the next section together, then continue the lift.

---

**At the drive tube**

- **Coordinate** the lift between the two ratcheted straps so that the door panel remains level as it rises.

- If you need to reset the straps, place vise grips under a non-guide roller in both tracks to temporarily hold the door panel in place.

- Place the service plates at a lower set of rollers and continue the lift.

---

**On the ground**

- **Watch** the rollers as they enter the fully enclosed upper section of the track.

- **Make sure** they are properly aligned and are not crushed, bent or pinched by the track.

- **Clip** the next tie around the rollers on both sides of the door panel to free up the next section.

- **Unroll** the next section of panel from the bottom of the roll.

- **Push** the door panel on the pallet away from the backrest. As the door panel rises, **continue to push** so that the next panel lines up with the panels in the track.

---

**CAUTION**

- Keep your hands flat on the panel slat and away from the hinge seal as you move the panels. Panels can shift unexpectedly.
5. When the top of the door panel enters the horizontal track, the bottom bar is clear of the floor.
   - Unroll the rest of the door panel
   - Move the forklift and pallet away from the door opening
   - Reinstall the bottom covers on the vertical tracks.

6. Continue to lift until the door panel is almost completely raised onto the horizontal track.
   - Make sure the door panel remains level throughout the lift.
   - If you need to reposition the ratchet straps, place vise grips under the bottom roller to hold the door panel in place, then reset the straps.

7. When the end tabs are just below the splice blocks:
   1. Place vise grips under the bottom roller on both sides of the door to hold the door panel in place.
   2. Pull the coiled secondary drive belts out of each console and lower them down the side column.
   - On -L and -L/R Spirals, the baseplate pulley assembly is lowered with the belt.
   3. Remove the three screws from each splice block.

8. Lift the door panel until the holes in the end tabs are even with the holes in the splice block.
   - Note: If necessary, you should be able to lift the door manually when it is this near the top of the door opening.
   1. Reposition the two vise grips to secure the door panel in place.
   2. Reinstall the splice block screws to secure the end tabs to the splice blocks.

9. Make sure that the bottom bar of the door panel is level before moving to the next steps.
   - If the bar is not level, reposition the vise grip and strap on the side that is higher, then “jump” a tooth on the belt to level the door panel.
   - Do not remove the ratchet straps or vise grips holding the door in place until after the secondary drive belt has been installed and tensioned.
How to install the springs

1. Make sure the total number of springs in the crate matches the number listed in the object list. The object list also shows how to divide the springs between the side columns.

2. Make sure the preinstalled spring straps on both sides of the head assembly match the table below for the total number of springs in the door.

Locate the parts and hardware for the spring assemblies in both side columns.

- Each assembly includes:
  - 1-3 springs
  - guide tubes
  - a guide bracket
  - a strap bracket
- When there are more than three springs in a side column, two assemblies are installed side by side and bolted together.
- The table to the right shows how to divide the parts and hardware found in the small parts box(es) and how to put together the assemblies.

<table>
<thead>
<tr>
<th>Total number of springs</th>
<th>Drive side</th>
<th>Non-drive side</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2</td>
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<td>11</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

**Important**: Match 0160812 screws to the illustration to make sure length in correct. Other screws used in the Spiral have the same head style, but are too long for the guide bracket nut and will damage the door.
NOTE: a four-spring, two-assembly configuration is shown for these steps.

It is recommended that you **do not use power tools** for these steps. Overtorquing screws can damage parts.

2. **Install** the guide tubes into the guide bracket. **Squeeze** the top of the tube, then slide the tube into a guide hole until it clicks into place.

3. **Install** the bracket into the side column.

4. **Slide** the top of the springs into the bracket.

5. **Slide** the bottom spring tabs into the wide slot ①, through the narrow ②, then **pull up to lock** it into the retaining slot ③. The spring should remain upright.

6. **Locate** the outer spring strap in each console. It is above the small white roller closest to the outer side of the console.
   - You may need to push aside the secondary drive belt and reach inside to find it.

7. **Cut the cable tie** on the outer spring strap, run it around the outer roller and **let it drop**.

8. **Loosen** the clamp on the spring strap.

9. **Position** the spring bracket so that the bumpers and locking tab face the side wall.

10. **Loop the spring strap** around the bolt in the spring bracket.
    - **Thread** the strap between two plates of the clamp.
    - **Hand tighten** the clamp nuts.
    - **Make sure** the clamp stays two inches (2") above the bracket.

11. **Set the spring tension**. This is the distance the springs must be stretched to provide the correct tension for the door.
    - **Locate** the spring tension ① on the object list.
    - **Round** to the nearest 1/16 inch.
    - **Measure** the distance between the bottom of the spring bracket and the top of the spring tab (shaded area).

12. **Adjust** the strap until the measured distance matches the object list and the distance from the clamp to the bracket is two inches (2").
How to install a second spring assembly

1. Install the guide tubes into the second bracket. Install the second bracket above the first.

2. Follow steps 6-10 for the second spring strap. Line up the second spring bracket and clamp with the first. Make sure the spring bracket bumpers face out.


How to install the baseplate pulley assembly on -L and -L/R doors

1. Remove the top nuts on the two baseplate mounting posts. Keep the nuts. IMPORTANT: DO NOT loosen the bottom nuts.

2. Install the pulley assembly onto the rear baseplate mounting post.
   1: Align the holes in the assembly with the posts.
   2: Press down on the pulley assembly as hard as you can.
   ➔ You will need to see at least three (3) threads of the mounting post clear to reinstall the nut
   3: Install the rear mounting nut and tighten it as much as you can.

3. Reinstall the front mounting nut.
   ➔ Tighten the nut until the front of the assembly is tight to the bottom nut.

4. Do this in both side columns.
How to install the baseplate pulley assembly on -S and -S/R doors

1. Remove the baseplate pulley:
   - Remove the outer snap ring to free the retaining pin.
   - Push out the retaining pin and remove the pulley.

2. Place the pulley inside the secondary drive belt and reinstall the pulley assembly.

3. Do this in both side columns.

4. If the side column has a second spring assembly, reinstall the second drive tube and install the springs.

How to set the tension on the secondary drive belts

Things to know about tensioning the belt

- **Drive side**
  - Locate the idler pulley bracket in both consoles, below the drive shaft.
  - Adjust the tension by turning the adjustment screw.
  - Access adjustment screw through side of console, behind the motor.
  - Before adjusting, loosen the bottom screw and two side nuts to allow bracket to move freely.
  - Tighten when the tension is set.

- **Non-drive side**
  - Access adjustment screw through front panel.
  - Locate the idler pulley bracket in both consoles, below the drive shaft.
  - Adjust the tension by turning the adjustment screw.
  - Test the tension by grabbing both legs of the belt near the midpoint.
  - Tension is correct when it requires considerable effort to bring the two legs together until they touch.

- **13mm T40**

- **16mm**

- **Increase tension**

- **Decrease tension**

- **Increase tension**

- **Decrease tension**

- **17mm**
How to install the locking collars at the top and bottom of the springs

1. Install collar into the top tab:
   a. Slide the opening in the collar onto the tab.
   b. Twist, then push the collar across the tab (the collar is flexible and will bend open enough to fit).
   c. Push the short end around until it clicks into place.

2. Follow the same steps for the tab at the baseplate pulley assembly.

Install the locking collars onto the tabs at the top and bottom of each spring after the secondary drive belts have been tensioned.
How to connect the brake release cable to the brake release lever

1. **Remove** the ratchet straps and any tools holding the door panel in place.
2. **Cut** the cable tie on the brake release cable. **Run** the cable down the side column to the brake release lever.
3. **Pull** the cable straight. **Allow** some slack. **Pull** down the brake release lever **to 90°**. **Run** the cable through the large hole in the brake release tab.
4. **Loosen** the screw on the cable stop clamp until you can thread the cable through the clamp. **Slide** the clamp against the lever tab and **tighten**.
5. **Pull down** the brake release lever to the fully released position.
6. The door panel should **release** under its own weight and **drop or rise** to approximately 1/3 of the door height. If it does not, **manually pull** the door panel to that height.
7. **Pull up** the brake release lever 180° to the fully engaged position.
8. **Try to manually move** the door panel up and down. You should **NOT** be able to move the panel.
9. If necessary, **adjust the tension** on the cable until both conditions are met:
   - The door moves freely when the brake release lever is in the fully released position.
   - The door does not move when the lever is in the fully engaged position.
10. **Release** then **reengage** the brake several times. **Test** after each time. **Make sure** the cable does not loosen after multiple uses.
    - If necessary, **adjust the tension** on the cable. When all tests are complete, you can **trim** the cable (minimum trim length = 4”).

**IMPORTANT**
There will be some resistance when you push the lever down, but it should not require excessive force to reach the fully released position. If you feel too much resistance, loosen the tension on the cable.

**SMALL PARTS**
There will be some resistance when you push the lever down, but it should not require excessive force to reach the fully released position. If you feel too much resistance, loosen the tension on the cable.

**DO NOT trim the cable** until the brake release has been fully tested.
How to install the corner brackets and wireless antenna

1. Locate the corner brackets, wireless antenna arm and hardware in the small parts box. Install a corner bracket on each side column.
   - The drive side bracket holds the wireless antenna arm and has an extra screw hole to secure the side panel cover.
   - The non-drive side bracket has an extra screw hole to secure the side panel cover.
   NOTE: depending on the configuration of the door, the drive side may be on the left (LH) or right (RH) side of the door. These steps show a left hand (LH) door.

2. Install the wireless antenna arm onto the drive side corner bracket using the included hardware.

3. Install the corner brackets. Each bracket uses one nut from the console.

4. Reach into the drive side compartment and remove the wireless antenna and antenna bracket from the top of the motor. Unwrap the antenna cable.

5. Install the wireless antenna bracket onto the wireless antenna arm. Use the hardware included with the arm. Run the cable under the clips in the console.
How to run the drive side cables for Pathwatch and light curtain

1. Gather the two cables and run them through the rear cable port in the console.

   - Locate the small cable port in the top rear corner of the console.

2. Route the Pathwatch cable ① to the rear seal.
   Route the light curtain cable ② through the port on top of the console and through the open front panel.

   - Locate the small cable port in the top rear corner of the console.

3. Splice the Pathwatch cables together above the drive side console. Run the splice cable to the controller.

   - Add cable tie attached to console around cables beyond splice point.

How to run the non-drive side cables for Pathwatch and light curtain

1. Gather the two cables together.

   - Electrical tape

2. Run the cables through the rear cable port in the console and across the rear seal (rear spreader).

   - Use self-adhering anchors.
   - Place first anchor on top of console.
   - Set anchors at 3-foot intervals.

3. Splice the Pathwatch cables together above the drive side console. Run the splice cable to the controller.

   - Add cable tie attached to console around cables beyond splice point.

   - Use UL-rated wire nuts.
4. Run the non-drive side cable together with the drive side cable through port and out front panel.
   Tie cables down to top of console.

5. Line up the light curtain cables with the X-10 junction box and trim to fit.

6. Loosen the four capture screws on the X-10 junction box cover 1 and pull off the cover.

7. Run the light curtain cables through the cord grips.
   1. Remove the cord grip covers 2.
   2. Thread the cables through the covers.
   3. Remove the plug 3 from the middle cord grip and discard.
   4. Thread the cables through the cord grips.
   5. Pull cables tight and tighten down the cord grip covers.

8. Find the schematics for the door in the red document envelope.
   Check the crate and small parts boxes for accessories such as activators or safety devices and any schematics included with them.
   If the schematics indicate the door has non-standard wiring, follow the schematics instead of this manual.

9. Wire the light curtains to the terminals in the X-10 junction box. Replace the cover.

---

1. Line up cables with bottom cable grips.
2. Add 6" to length of cable.
3. Trim cable.
   X = do not use front cable grips.

---

How to open a terminal connection

1. Slide the screwdriver into the square opening until the flat blade wedges against the spring inside.
2. Twist the screwdriver while pushing down to pry the spring open.
3. Push straight down to lock the spring open.
4. Push in the wire until it is fully seated, then remove the screwdriver.

---

Wire stripper

---

Precision screwdriver

---

Unplug green and yellow wires from terminals #10 and #11.
Cap wires.
How to install the System 4 controller and wire the door

**WARNING**

All electrical work must meet all applicable local, state and national codes. It is recommended that all electrical work be done by a certified electrician. Failure to wire the door correctly could result in shock, burns or death to the people who install, use or service the door.

**WARNING**

The high-voltage power to the controller must be properly grounded. Improper grounding could result in shock, burns or death to the people who install, use or service the door, as well as catastrophic motor failure.

### Before you begin

1. **Make sure** you have all supplies and tools.

   - **Supplies that you provide**
     - Conduit for high-voltage and low-voltage wiring
     - Mounting hardware for controller (3 anchors)

   - **Tools you will need**
     - Power drill
     - Step drill bit
     - #2 Philips screwdriver
     - T20 Torx screwdriver
     - Precision screwdriver
     - Wire tool
     - Cement drill (if needed to mount controller)

2. **Check** the job site.

   - The ambient temperature must be between -4°F and 149°F at all times.
   - **NOTE:** for freezer doors, the controller and fused disconnect must be mounted on the warm side of the door.
   - The mounting surface for the System 4 controller and fused disconnect must be structurally sound and free of mechanical shock and vibration.

3. **Install** the high-voltage power supply.

   - Provide a high-voltage power supply that matches the electrical spec for the System 4 controller.
   - A fused disconnect is recommended. Fuses must meet NEC code for FLA listed on the electrical spec for the System 4 controller.

4. **Make sure** the high-voltage and low-voltage cables from the head assembly of the door are separate. Cables may be routed through the top (1) or bottom (2) port at the back of the belt guard cover.

   **Label** the controller end of the cables. **Label them again** if you cut or trim them.

### Instructions

- The System 4 installation must meet all of the standards and follow all of the steps shown in these instructions. Failure to do so voids the warranty for the door.

- The high-voltage and low-voltage conduits must be separated by a distance that meets all applicable federal, state and local codes and regulations.

- Wires must be cut to length. Do not loop wires or leave excess length untrimmed.

- Use shielded wiring where indicated in these instructions.

- If you splice wires:
  - You must use the same gauge wire for the entire length. Gauge is listed in the steps in these instructions.
  - All spliced field wiring must maintain the voltage and temperature rating supplied by Rytec.

Contact Rytec technical support at 800-628-1909 or email helpdesk@rytecdoors.com before starting the installation if you cannot meet any of these standards or have questions about how to implement them.
How to install the System 4 controller

1. **Open** the System 4 controller box and get the controller and ferrite filters. **Loosen** screws on the control box and **open** the cover panel.

![Open the System 4 controller box](image)

- Ferrite filters
- System 4 controller
- Electrical specs
- Serial number

2. **Install** the control box onto the wall using the hardware you have supplied.

3. **Drill** holes through the bottom of the control box for the conduit.

   **Conduit must enter through the bottom of the control box.**
   **Drilling holes in the front, back, top or sides of the control box voids the warranty.**
   **High-voltage wires** must enter through the left side of the box bottom.
   **Low-voltage wires** must enter through the right side of the box bottom.
   **Holes must be drilled.** The indentations in the box bottom are not knockouts.

   **IMPORTANT**

   ONLY drill holes and install conduit through the bottom of the control box.
   DO NOT drill through the front, back, top or sides of the box.

How to install the high-voltage wiring

**WARNING**

Set the disconnect switch to the **OFF position** and perform a lockout/tagout of the high-voltage disconnect before installing wiring to the controller. Do not set the disconnect switch to the **ON position** until the wiring installation is complete and the controller is fully earth grounded per instructions. Failure to comply could result in shock, burns or death.

**Find the schematics** for the door in the red document envelope. **Check the crate and small parts boxes** for accessories such as activators or safety devices and any schematics included with them. If the schematics indicate the door has non-standard wiring, **follow the schematics** instead of this manual.

1. **Connect** the supply voltage wiring from the disconnect.

   - **DO NOT** use power tools.
   - **For ground bar**
   - **For terminals**
   - **2**

   **12 AWG**

   - **Power source and disconnect**
   - **Maximum torque** for all screws is 2.5 in-lbs.
   - Place one large ferrite filter around all three wires, and one small filter around each individual wire.

   Wire colors shown are for a 460V power source.
   Wire colors for 230V power are L1=red, L2=black, L3=blue.
1. Connect the brake wiring from the motor. 
   Shielding: unshielded 
   Maximum torque for all screws is 2.5 in-lbs.

2. Connect the wiring from the Pathwatch LED strips. 
   Shielding: unshielded

Maximum wire length between motor and controller: 100’ (one hundred feet).

The shield (braided copper mesh) and drain wire (bare metal) must be in contact with the P-clip.

To ensure a tight contact: 
1. Loosen the P-clip. 
2. Strip high-voltage cable jacket to expose braided shield, then pull back shield and wrap drain wire around it. 
3. Run wires, shield and wrapped drain wire under clip. 
4. Tighten clip. 
5. Trim excess drain wire.

DO NOT use power tools.

Low-voltage wires can be run in the same conduit. All low-voltage wiring must be 24 VDC+ only, installed per NEC to Class II power supply requirements. 
Maximum torque for all System 4 controller screws is 2.5 in-lb. DO NOT use power tools.

If cables were spliced in head assembly, there will be one cable and one set of wires.
3 Connect the wiring from the encoder.
   Shielding: metal foil and drain wire

**IMPORTANT** Encoder wiring must not be spliced unless you have consulted with Rytec technical support at 800-628-1909.

Mark controller end of cable as “Encoder”

The **drain wire** (bare metal) must be in contact with the P-clip.

**To ensure a tight contact:**
1. Loosen the P-clip.
2. Strip encoder cable jacket to expose wires.
3. Trim and bend red, pink, gray and blue wires. Tape to jacket.
4. Wrap drain wire around jacket and unused wires.
5. Slide cable under P-clip and tighten.
   **Make sure there is maximum contact** between clip and drain wire.
6. Trim excess drain wire.

4 Connect the wiring from the X-10 junction box.
   Shielding: unshielded
Spiral® LH® (Low Headroom) SSN and STN Installation Manual

Before powering up the door:

**WARNING**

It is recommended that this pretest be done by a certified electrician.

1. Make sure the power to the door is correct.
   - Open the System 4 control box and check the power supply listed on the label inside.
   - Test the voltages at the disconnect. Test leg to leg and leg to ground.
   - If power is correct, power up the door and start the set limits sequence.

How to set limits and test the door:

**CAUTION**

Make sure that people and vehicles do not pass through the open doorway until the automatic calibration is complete. The door can open or close unexpectedly, resulting in injury.

NOTE: The System 4 display uses hexadecimal numbers to number parameters and for some values. The display uses the ten numeric characters (0-9), plus six letters (A-F), which represent the values from 11 through 16. In some cases it will be necessary to press the UP arrow sixteen times to change a value from 0000 to 0010.

**Icon key**

- #2 Multimeter
- 001 = 1979 Cyc
- P:Password O
- Access level
  - O = Operator level
  - S = Service level
  - R = Rytec level
- Accesses more parameters
- Requires password from technical support

**Blinking cursor**

- On left side of display: press arrows to change parameter number
- On right side of display: press arrows to change parameter value

**Parameter name**

- The Controller Display
- The Controller Controls

- Parameter number
  - All three digits are hexadecimal
- Parameter value
  - ? = value being changed
  - ? = change saved

**UP Arrow**

- Press to increase a value or parameter number
- Press and hold to increase values or parameter numbers quickly

**DOWN Arrow**

- Press to decrease a value or parameter number
- Press and hold to decrease values or parameter numbers quickly

**RESET Button**

- Press to toggle the flashing cursor between parameters and values
- Press and hold to save changes to a value

**OPEN**

Press UP or DOWN arrow, as needed
Press and hold
Press

**CLOSE**

Press UP or DOWN arrow, as needed
Press and hold
Press

Make sure the protective film has been removed from both light curtains before turning on power to the door.

Do This Result

1. The sequence starts. Scrolling message: Press Reset button to begin.
2. Scrolling message: Hold Reset button if position OK. Interrupt the set limits sequence and run the tests in what to test after powering up the door on the next page.
3. Resume the sequence and set the open position. The top of the end brackets should align with the bottom of the radial guide track.
5. Do this.
6. Do this.

The door may not open or close completely during automatic calibration. This is normal. When calibration is complete, the door will open and close correctly.

You can now test the door.
What to test after powering up the door

Press and hold the arrows to fully open, then fully close the door five (5) times.

1. **Does the door panel move in the right direction?**
   - **Test:** The direction of the door should match the direction of the arrow on the controller.
   - **Yes:** no action is needed.
   - **No:** follow the steps in **How to reverse the rotation of the motor**.

2. **Is the door panel level and plumb?**
   - **Test:** Laser the door along the seal between two door panel slats.
   - **Yes:** no action is needed.
   - **Panel is not level:** follow the steps in **How to adjust the secondary drive belt**.
   - **Panel is not plumb:** contact Rytec technical support at 800-628-1909.

3. **Is the manual brake release operating correctly?**
   - **Test:** pull down the lever to 90° to manually release the brake, then push the lever back up to reset it.
   - **Release operating correctly:** when the lever is down, the door panel moves freely and the controller displays an F211 Emergency Stop error. When the handle is reset, the controller displays Door held open and you can close the door by pressing the DOWN arrow.
   - **Release NOT operating correctly:** the F211 Emergency Stop error stays on when the lever is reset, and the door cannot be closed. Follow the steps in **How to adjust the proximity sensor**.

4. **Is the door operating correctly?**
   - **Test:** listen for grinding, whining or excessive motor noise. Watch for changes in speed or excessive movement of the motor or drum
   - **Yes:** no action is needed.
   - **No:** contact Rytec technical support at 800-628-1909.

---

How to reverse the rotation of the motor

**First:** set the controller to Parameter mode and access Service level parameters

<table>
<thead>
<tr>
<th>Do This</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>until the parameter screen displays&lt;br&gt;<strong>P: Password</strong>&lt;br&gt;<strong>999= 0010##</strong>&lt;br&gt;You are in Parameter mode. Go to parameter P:999.</td>
</tr>
<tr>
<td>2</td>
<td>2x to reach parameter P:999&lt;br&gt;<strong>P: Password</strong>&lt;br&gt;<strong>999= 0000##</strong>&lt;br&gt;The parameter P:999 screen displays.</td>
</tr>
<tr>
<td>3</td>
<td>1x to move cursor to the right (edit value)&lt;br&gt;<strong>P: Password</strong>&lt;br&gt;<strong>999= 0000##</strong>&lt;br&gt;You can now change the value of parameter P:999.</td>
</tr>
</tbody>
</table>

**Next:** navigate to parameter P:130 and change the value

<table>
<thead>
<tr>
<th>Do This</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>until parameter displays&lt;br&gt;<strong>P: Mtr Rotation S</strong>&lt;br&gt;<strong>130= 0 ##</strong>&lt;br&gt;Value is either 0 or 1.</td>
</tr>
<tr>
<td>2</td>
<td>1x to move cursor to the right (edit value)&lt;br&gt;<strong>P: Mtr Rotation S</strong>&lt;br&gt;<strong>130= 1##</strong>&lt;br&gt;The value is either 1 or 0.</td>
</tr>
</tbody>
</table>
**How to adjust the secondary drive belt**

**WARNING**

Do not perform this procedure until the power disconnect is in the OFF position and a lockout/tagout is complete.

Contact with high-voltage wires, or the door being activated unexpectedly, can cause death or serious injury.

---

1. **Loosen** the secondary drive belt until there is considerable slack.
   1. **Loosen** the restraining bolts on the idler bracket (1), then turn the adjustment screw (2) **counterclockwise** until the bracket stops moving forward.
   2. If necessary, **loosen** the front nut on the baseplate pulley assembly (2). **DO NOT remove** the nut.
   3. **Check** the belt (2) for slack.

2. **Laser level**

3. **In the console with the higher belt, “jump” the secondary drive belt** one notch in the pulley.
   **Important** Adjust the belt **one tooth at a time**, then recheck level.
   - **Push** slack to create a “wave” in the belt and hold it against the pulley.
   - **Press down** on belt until teeth drop into the next notch on pulley.
   - **Push “wave” around pulley and down the other side.**

4. **Level** the door panel again.
   - If the door panel is not level, repeat these steps and retest.
   - If the door panel is level, reset the tension on the belt.

5. **Reset the tension** on the belt.
   - **Tension is correct** when it requires considerable effort to bring the two legs of the belt, near the midpoint, together until they touch.
How to adjust the proximity sensor

What’s the problem? The controller tracks the position of the manual break release through a magnetic sensor located in the motor. In some installation environments, the sensor needs to be adjusted from the factory preset to correctly track the brake release.

1. At the motor, remove the brake release lever.
   DO NOT remove the cable. The play in the spring allows it to turn with the release lever until it is free of the motor.

2. Remove the four screws and the bottom cover of the motor.

3. Check the distance between the sensor and the brake release arm. It should be 0.03"/.76mm, which is the thickness of a credit card.
   To adjust the sensor, first loosen the outer nut, then tighten the inner nut to secure it in place.

4. Test the manual brake release again.
   If the controller displays the F211 error on reset, repeat these steps and retest.
   If the controller displays "Door Held Open", the issue is resolved.
   Reinstall the motor cover and the brake release lever.

WARNING
Do not perform this procedure until the power disconnect is in the OFF position and a lockout/tagout is complete.
Contact with high-voltage wires, or the door being activated unexpectedly, can cause death or serious injury.
How to manually reset the close limit (optional)

First: set the controller to Parameter mode and access Service level parameters

Do This | Result
--- | ---
1 | until the parameter screen displays
   ▲ | You are in Parameter mode. Go to parameter 999.
2 | 2x to reach parameter P:999
   ▲ | The Parameter screen displays.
3 | 1x to move cursor to the right (edit value)
   ▲ | You can now change the value of parameter P:999.

Next: navigate to parameter P:275 (parameter P:221 for doors with photo eyes) and change the value

Do This | Result
--- | ---
1 | until parameter displays
   ▲ | The default value is -12 (default at.
2 | 1x to move cursor to the right (edit value)
   ▲ | You can now change the value.
3 | 4x to change the value to 4
   ▲ | The new value is saved.
4 | until question mark changes to checkmark (value saved)
   ▲ | The new value is saved.
5 | until door returns to run mode
   ▲ | Spiral [xxx] Cycles
6 | press either arrow to start cycling
   ▲ | Acl 1 5 Sec

How to finish testing the door and the safety features

Navigate to parameter P:980 and set the value to 4 so the door will cycle continuously

Do This | Result
--- | ---
1 | until parameter displays
   ▲ | The default value is 0.
2 | 1x to move cursor to the right (edit value)
   ▲ | You can now change the value.
3 | 4x to change the value to 4
   ▲ | The new value is saved.
4 | until question mark changes to checkmark (value saved)
   ▲ | The new value is saved.
5 | until door returns to run mode
   ▲ | Spiral [xxx] Cycles
6 | press either arrow to start cycling
   ▲ | Acl 1 5 Sec

Watch the door as it cycles.
- Make sure the door panel rises to the fully open position, remains in place for the standard time, then closes to the fully closed position.
- Make sure the fully open and fully closed positions remain at the set limits.
- Make sure the reversing edge is level when the door is fully closed.

- Let the ACL timer hold the door open through each cycle. Shortening the timer while the door is cycling can cause the motor to overheat.

While the door cycles, look and listen for:
- Unusual noises such as grinding, whining or excessive motor noise
- Excess movement by the motor, drive or drum.
- Unexpected delay in activation or unusually long time period before automatically closing.

Make sure the Pathwatch LED strips operate correctly as the door opens and closes:
- Continuous red light while the door closes.
- Three-second sequence of yellow light before the door closes.
- If the door also has a Pathwatch II warning light at the top of the door:
  - There is also a continuous red light while the door opens.
  - The three-second sequence before the door closes is red instead of yellow.
Make sure the blue and green LEDs are activated in both light curtains, and that the red LED in the receiver is NOT activated.

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4 Receiver

5 Test the light curtain by placing your hand flat across the light curtain in the path of the door at the top 1, middle 2 and bottom 3 of the light curtain while the door panel closes.

Make sure the door panel returns to the fully open position each time the light curtain is activated.

Make sure the door panel stops immediately when you place your hand at the top 1 of the light curtain, and gradually when you place your hand in the middle 2 or at the bottom 3.

5 Test the light curtain by placing your hand flat across the light curtain in the path of the door at the top 1, middle 2 and bottom 3 of the light curtain while the door panel closes.

Make sure the door panel returns to the fully open position each time the light curtain is activated.

Make sure the door panel stops immediately when you place your hand at the top 1 of the light curtain, and gradually when you place your hand in the middle 2 or at the bottom 3.

6 Test the reversing edge by placing your arm in the path of the door while it is closing.

Make sure you place your arm above the light curtains.

The door panel should stop, then reverse direction and rise to the fully open position.

IMPORTANT

7 IMPORTANT

Set the controller to parameter mode.

Set Parameter 980 back to 0 to take the door out of continuous cycle.

Return to run mode.

8 Activate the door using each activating system at least three times per system.

IVARING

Make sure you are standing clear of the door panel while performing this test.

If the red LED is on, run a laser level on the vertical guide track to make sure light curtains are at the same height. Adjust if necessary.

If the red light does not go off, or if you see a different combination of lights, call Rytec technical support at 800-628-1909 and request Service Bulletin #274.

If the red light is on, run a laser level on the vertical guide track to make sure light curtains are at the same height. Adjust if necessary.

IMPORTANT

Keep REUSE number of screws varies based on height of door.

If the red light does not go off, or if you see a different combination of lights, call Rytec technical support at 800-628-1909 and request Service Bulletin #274.

It is recommended that you do not use power tools for these steps. Overtorquing screws can damage the riveted nuts that secure them.

Reinstall both side column covers.

Close and secure the front panels on both consoles.

Install an additional screw from the small parts box into the screw hole in the corner bracket. Do this in both side columns.

How to complete the installation

Keep REUSE number of screws varies based on height of door.

SMALL PARTS

01900820

T40

SMALL PARTS

01900820

T40

SMALL PARTS

01900820

T40

SMALL PARTS

01900820

T40
3. Reinstall the belt guard cover.

4. If necessary, use the spray paint to correct blemishes in the door finish.

5. Caulk between the door opening and the door.

6. Full vision doors: remove the protective plastic film from both sides of each door slat.

CAUTION
Film can release a static charge when removed.